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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/806,300
Filing Date: May 17, 2001
Appellant(s): LINDEMANN, KLAUS

Larry J Hume

For Appellant

Examiner's Answer

This is in response to the appeal brief filed 06 September 2007 appealing from the Office action mailed 20 October 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,131,024	Boltz	10-2000
5,784,442	Foti	07-1998
6,044,259	Hentila et al.	03-2000

(9) Grounds of Rejection

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5, 8 and 11-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boltz (U.S. Patent 6,131,024) in view of Foti (US 5,784,442).

As to claims 1 and 8, Boltz teaches a method and arrangement for transmitting credit/charging information to a mobile station, the method/ arrangement including:

Maintaining credit/charging information related to the subscriber of the mobile station in a network node (column 3, line 41 to column 4, line 11, the usage limits are pre-defined by the user and stored in the HLR or intelligent node),

Detecting a call setup request wherein the a call setup request indicates a call chargeable to the subscriber of the mobile station but does not include the credit/charging information (column 4, lines 19-22, the HLR Usage Application retrieves the subscriber information and confirms that the requesting MS has a subscription to define usage limits),

Based on the call setup request, determining the credit/charging information maintained in the network node (column 4, lines 41-47, during call setup, the Usage Monitoring Application within the MSC will manage the call completion in accordance to the limit information),

Establishing the call (column 4, lines 47-58),

Detecting a termination of the call (column 5, lines 15-27, at call completion),

Updating the credit/charging information maintained network node (figures 2 and 3, column 5, lines 15-27, *at call completion*, the Usage Monitoring Application within the MSC updates the current usage amount of time or money spent and stores the data in the VLR and updates the HLR).

Boltz also teaches sending the credit/charging information to the mobile station as a connectionless message during call setup (column 4, lines 41-58) or upon subscriber request by USSD or MMI message, column 5, lines 27-36, but does not teach (automatically) sending the information in response to the detection of the call termination.

Foti teaches a method for providing real time billing information to mobile subscribers where each real time billing (RTB) subscriber is provided with a readout of

the charges for each call immediately after each call is completed, figure 2, column 5, lines 9-27 and column 6, lines 20-27). Foti further teaches the message of charges may be delivered by a short message service center and the air interface control channel to the display of the RTB subscriber's mobile telephone, column 6, lines 13-20.

Since Boltz teaches call charge information is automatically provided to the user during call setup, column 4, lines 41-58, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Boltz with the automatic notification approach of Foti at call completion such that the subscriber has the convenience of phone usage or recharge decisions prior to any subsequent call attempt by the subscriber or other designated user.

As to claim 2, Boltz teaches claim 1 further comprising defining an upper limit for an accumulated price of telephone calls, monitoring the accumulated price of telephone calls and allowing a new call only if the accumulated price of telephone calls is less than the upper limits (column 4, lines 41-58, user defined usage limit to be stored in the HLR).

As to claim 3 with respect to claim 1, Foti of Boltz modified teaches the connectionless message is a short message (column 6, lines 16-20).

As to claim 4 with respect to claim 1, Boltz teaches the connectionless message is an Unstructured Supplementary Service Data message (column 4, lines 1-11).

As to claim 5 with respect to claim 1, Foti of Boltz modified teaches releasing the call with sufficient delay to allow sending the connectionless message without paging the mobile station separately after detecting the termination of the call (column 5, lines 16-18 and column 6, lines 16-20, charges are immediately delivered to the subscriber via SMS using a control channel after each call is completed).

As to claims 11 and 13 with respect to claims 1 and 8, Foti of Boltz modified teaches the system is further configured to send to the mobile station a price of a call (column 5, lines 16-20).

As to claims 12 and 14 with respect to claims 1 and 8, Boltz teaches the subscriber defines the limit usage based on charging information, column 3, lines 41-57, but does not specifically teach the system is configured to send to the mobile station a lifetime of available credit.

Hentila teaches subscriber defined instruction located at a service control point of an intelligent network with real time calculations for the call, where the instructions indicate how to perform when certain conditions are met including when predetermined charges are exceeded or certain number of calls allowed with the subscriber notified accordingly, column 6, lines 46-59, column 7, lines 21-37. Hentila specifically teaches the call can be monitored in respect of other conditions indicated in the subscriber

record such that at the end of the call, the subscriber's account shows the real time balance, column 8, lines 22-29).

It would have been obvious to one of ordinary skill in the art at the time of the invention to identify in the subscriber defined call control system of Boltz the additional subscriber call control instructions of Hentila to report the subscriber's account status regardless of the specific account credit arrangements.

As to claim 15, Foti of Boltz modified teaches the method of claim 1 wherein the credit/charging information is automatically displayed on a display of the mobile station (column 5, lines 16-18, each subscriber is provided with a readout of the charges for each call immediately after each call is completed on the digital display on the telephone).

As to claim 16, Boltz teaches the arrangement of claim 8 further comprising:

Means for defining an upper limit for an accumulated price of telephone calls (column 3, lines 41-67, the subscriber defines the usage limits of the mobile station with network storage),

Means for monitoring the accumulated price of telephone calls (figure 2, step 225, column 4, lines 41-58, the MSC will check the current usage amount during call setup), and

Means for allowing a new call only if the accumulated price of telephone calls is less than the upper limit (figures 1 and 2, step 250, column 4, lines 41-58, the call will

be allowed to continue as normal if the current usage amount does not exceed the usage limit).

As to claim 17, Foti of Boltz modified teaches the arrangement of claim 8 further comprising means for releasing the call with sufficient delay to allow sending the connectionless message without paging the mobile station separately after detecting the termination of the call (column 5, lines 16-18 and column 6, lines 16-20, charges are immediately delivered to the subscriber via SMS using a control channel after each call is completed).

As to claim 18, Foti of Boltz modified teaches the arrangement of claim 8, further comprising means for automatically displaying the credit/charging information on a display of the mobile station (column 5, lines 16-18, each subscriber is provided with a readout of the charges for each call immediately after each call is completed on the digital display on the telephone).

As to claim 19, Foti of Boltz modified teaches the arrangement of claim 8 further comprising a mobile station which comprises:

Means for receiving credit/charging information related to the mobile station's subscriber in a connectionless message from a network node (column 6, lines 16-20, charges are delivered by a short message service (SMS) message center and the control channel to the display of the subscriber's mobile station), and

Means for automatically displaying the credit/charging information on a display of the mobile station (column 5, lines 9-27, each subscriber is provided with a readout of the charges for each call immediately after each call is completed).

Claims 7, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boltz (U.S. Patent 6,131,024) and Foti (US 5,784,442) in view of Hentila.

As to claims 7 and 9, with respect to claims 1 and 8, Boltz modified does not teach a system comprising a Service Control Point of an Intelligent Network, the Service Control Point including a Service Logic Program configured to send the credit/charging information in response to detection of the call termination.

Hentila teaches an intelligent network to handle different and evolving call services comprised of a Service Switching Point (SSP) to give the user access to the network and detects service requests of the intelligent network, a Service Control Point (SCP) comprising the programs of the service logic and a service data Point (SDP) that contains the program service data (column 1, lines 39-67). This network under SCP control is used to coordinate and implement call services where the call may be monitored in respect to call accumulation and other condition indicated in the subscriber record (figure 3, column 8, lines 11-29 and column 4, lines 34-56).

It would have been obvious to one of ordinary skill in the art at the time of the invention to realize in the basic architecture in the system of Boltz modified application of the intelligent network and prepaid call control system of Hentila for an intelligent

network to direct the operational steps to determine, communicate and send credit/charging information to the mobile station.

As to claim 10, Foti of Boltz modified teaches her arrangement of claim 9 further comprising a separate processor configured to format the credit/charging information (figure 2, local Post Processing Unit (23) with computer (24), column 6, lines 9-16).

Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

(10) Response to Argument

The appellant argues that the combination of the prior art Boltz and Foti do not teach the last claim element of independent claims 1 and 8; “transmitting credit/charging information to a mobile station as a connectionless message in response to the detection of a call termination”. Specifically, the appellant contends the secondary prior art Foti’s use of the phrase "completion of the call” is actually referring to completion of the call establishment phase rather than immediately after the completion of the call.

Primary art, Boltz teaches a cellular system to store and track the user defined call time usage limits. At call completion, the “Usage Monitoring Application” within the MSC will update the current usage amount based upon the amount of usage for the

given call and store it in the visiting location register (VLR) and subsequently the home location register (HLR). Note that figure 3 of Boltz clearly shows the order of the method steps where the system checks the current usage does not exceed usage limit (250), call continues (255) and call completion (260) followed by the MSC updates current usage (265) and current usage stored in the VLR (270). Therefore, "call completion" of step (260) logically means call termination since the MSC updates the billing records in the next step, column 5, lines 15-27. Boltz also teaches, using a USSD or other MMI message, the mobile subscriber may transparently request (without call setup) of the MSC the current accumulated usage and the defined usage limits for display to the subscriber, column 5, lines 28-37. Boltz does not clearly teach the information is provided (automatically) "in response to the detection of the call termination".

Foti teaches a system for providing real time billing (RTB) information to a mobile subscriber and is applied in combination with Boltz *to teach when* the "sending the credit/charging information to the mobile station as a connectionless message in response to the detection of the call termination". Foti teaches each real time billing subscriber is provided with a readout of the charges for each call *immediately after each call is completed*, column 5, lines 9-21. In further support of "after each call is completed" to mean call termination, Foti describes each MSC involved in the call passes tagged toll ticketing records to the local post processing unit *as soon as a call involving one or more real time billing subscribers is completed*, column 5, lines 53-67.

Then Foti discloses the charges may be delivered by SMS message, “a connectionless message” to the display of the real time billing subscriber’s mobile station.

In summary, prior art Boltz and Foti teach a cellular system capable of tracking and providing a real time billing service to the mobile subscriber where Foti specifically discloses the billing information is provided automatically, hence the expression “real time billing", to each subscriber after each call is completed.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner’s answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Blane J Jackson/

Examiner, Art Unit 2618

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